

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

Woodland Container Corp

Minnesota Technology Inc.

Woodland Container Reduces Set Up Times, Increases Competitiveness

Client Profile:

Woodland Container Corp., headquartered in Aitkin, Minnesota, has been providing local, national and international companies with the smartest and most economical packaging solutions for more than 50 years. The company manufactures a wide range of customized packages using wood, metal and other materials. Customers include all-terrain vehicle manufacturers, wire and cable manufacturers, the U.S. military and many other OEM manufacturers. Woodland operates seven plants in five states. The Aitkin 50,000 square-foot facility employs 25 people, making a wide range of products including wooden reel used for cables and wires.

Situation:

Woodland worked with Minnesota Technology Inc. (MTI), a NIST MEP network affiliate, to introduce lean manufacturing principles in its plants. In addition to training employees in basic lean principles, the company had conducted value-stream maps of several of its processes. The market for all packaging solutions has become more competitive as manufacturers consolidate worldwide. In addition, the market for cable and wire has declined somewhat after a boom in the late 1990s, when many communities installed fiber optics. Woodland concluded that the most valued providers of containers are those able to provide not only a competitive price, but flexibility and service for all levels of customers. Many of the batch sizes requested by Woodland's customers were small, and the company determined that it needed to be able to expedite its changeover process to economically fill those orders. Woodland turned to MTI for assistance.

Solution:

MTI supervised students from an industrial design program at the University of Minnesota-Duluth who designed and developed a nail-feeding system for Woodland. Changing nail sizes was one of the many changes that took place as the manufacturing line switched from product to product. Cleaning and re-setting of the nail feeder was a particularly time-consuming step in the process.

Results:

- * Redesigned nail pans reduced changeover time from 20 minutes to less than 2 minutes.
- * Reduced batch sizes and inventory.
- * Increased productivity.
- * Reconfigured conveyor belt reduced set-up time by 22 percent.

Testimonial:

"MTI played a significant role in this process. From the beginning, they have worked with us to identify value stream maps, which ultimately led us to the objectives of reducing set up times and batch sizes."

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David Gevernak, Director of Marketing and Sales